SBP SELF-LAMINATING LABELS

A TE Connectivity Rail briefing paper

How SBP labels raise the standard for wire and cable identification

ELECTRICAL INSTALLERS IN THE GENERAL ELECTRICAL, INDUSTRIAL, DEFENCE, AUTOMOTIVE AND ELECTRONICS INDUSTRIES TURN TO IDENTIFICATION MARKERS LIKE TE CONNECTIVITY (TE)'S SBP SELF-LAMINATING LABELS WHEN THEY WANT A COST-EFFICIENT WAY TO IDENTIFY WIRE AND CABLE IN GENERAL ELECTRICAL INSTALLATIONS.

It has a long-established portfolio of identification products that meet the priorities of customers across multiple industries, whether they want long-term legible markers that survive tough operating environments or to identify cables and control costs in a more straightforward application.

In this paper, Stephen Earley, global product manager for identification systems, introduces the SBP marker for general electrical installations in multiple industries.

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The Role of Cable Identification Markers

Only when wire and cable identification markers fail does their value become clear.

Faced with the task of resolving an issue on a cable harness when there are hundreds of cables but without idents, any maintenance technician would be frustrated and the job would last significantly longer than necessary.

With the many inspections, refurbishments, and refits an installation experiences during its lifetime, saving a few seconds or a few minutes for every cable translates into real financial savings.

The message is clear: traceability is important and poorly identified cables can hit the bottom line so it's important to select the right ident.

SBP: The Self-Laminating Vinyl Label

One ident that is worth understanding is the SBP label, which is used widely across applications in the electrical, industrial, defence, automotive, and electronics sectors.

It is a good choice for applications where an installer needs to mark a large number of wires or cables and the markers need to remain in place and legible over a life of five to seven years.

The very thin and conformable SBP label sits tightly onto wires and cables – and gives the installer and maintenance engineer the ability to easily read the printed text.

The main advantage of the SBP label is that it offers a cost-effective way to label wires and cable when installations don't have to survive the very toughest environmental conditions. However, it is a proven and effective label for the right installations.

Practicalities and Printing of SBP Labels

Each individual SBP label has a white printable section and a long clear tail. The clear section, also known as the tail, wraps around the wire and covers the printed area giving an environmental seal and so protects the text from dust and debris. This clear section protects the mark from exposure to fluids such as oils, solvents, and water, and also from mechanical wear and tear such as rubbing or abrasion.

SBP label is suited to wires and cables in the range of 2.7mm to 48mm in diameter, as well as flat ribbon cables. Once in place, the labels can cope with repeated bending.

It is manufactured from a vinyl material with a permanent acrylic adhesive that makes sure that once it is in place, it stays there. Being UL certified, it is suitable for installation in OEM equipment and subsystems that will be used by customers in the US.

Installers who want an ident for tougher environments may find that the SBP label doesn't meet all their needs but there are other products that have additional features. For example, those who need an ident for an installation where the temperature rises above 80˚C could opt for SP labels instead that will survive in 150˚C.

Anything is possible in terms of the marks that can be printed onto the SBP labels. As long as it fits onto the label's printable area, it's possible to print numbers and letters in multiple languages and alphabets for sequential numbering, bar codes, logos, and symbols.

Labels are supplied in rolls of 1,000 to 10,000 labels and printed on a dedicated high resolution printer that has the right ink and printer settings that will ensure the mark is legible in the long term.

System Approach

As with any of its self-printed ident products, TE takes a system approach to SBP self-laminating labels.

This is because failure of an ident can come from many sources. Much like a chain is only as strong as it weakest link, an ident may fail for any number of reasons. The material may snap or crumble, the mark might rub or fade away, or otherwise become illegible.

When new, an ident will work faultlessly. But over time it may experience wear and tear from chemical attack, intense sunlight and mechanical friction or vibration. Cyclical temperature changes could cause degradation as the marker repeatedly expands and contracts.

Because of this, the SBP label itself has been developed and tested as a system that includes the labels themselves as well as the printer, print settings, printer ribbon, and software. Only when used together can an installer be certain that the label will perform as expected.

End-to-End Control during Manufacture

Behind the scenes at TE, the systematic approach continues. We have total end-to-end control over the manufacture, production, and testing of ident systems.

Product quality can be affected by any number of variables during manufacture. Quality of the raw material is an obvious example, but mixing rates, production temperature, and even the grain size of ingredients can all affect quality.

Tight control at every stage translates into consistent high quality of product and rigorous laboratory testing ensures that our products meet the standards.

Choosing the Right Ident

Although it sounds simple, cable identification is surprisingly complex. Every operating environment and industry has its own set of standards and these vary in different countries and regions of the world. Add to this that many organisations have their own standard specifications and individuals have personal preferences.

TE is connecting with its customers to give them the tools and support they need to find the right product to balance all of these needs.

About The Author

Stephen Earley is global product manager for TE's identification products. He has long experience in the identification field and the corresponding markets such as Aerospace, Defence, Marine, Rail, as well as Electrical since 1992. Today he is leading an initiative to reconnect TE's identification products around the world, including a new catalogue that has been designed around the needs of the customer.

About TE Connectivity

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